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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/527,502

03/10/2005

Shinichi Handa

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EXAMINER

WON, BUMSUK

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/527,502	<b>Applicant(s)</b> HANDA ET AL.	
	<b>Examiner</b> BUMSUK WON	<b>Art Unit</b> 2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,8,9 and 11-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,8,9 and 11-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

The amendment filed on 3/10/2008 has been entered.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3, 4, 6, 8, 9, and 11-23 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasunori (JP 2002-221911) which is cited in the IDS in view of Miyake (US 2003/0038595).

Regarding claim 1, Yasunori discloses an EL element (figures 1 and 2) comprising: a first film substrate (1), an EL part (2), and a sealant layer (9), the EL

part comprising a first electrode (3), an EL layer (4, 5, 6), and a second electrode (3), and being provided on a part (1a) of a surface of the first film substrate; the sealant layer (9) being provided to cover the EL part and to cover an EL part-free part (1 except 1a) of the surface of the first film substrate in such a manner that the sealant layer covering the EL part is contiguous with the sealant layer covering the EL part-free part of the surface of the first film substrate (figures 1 and 2).

Yasunori further discloses having an insulating layer (8) which is between the first electrode (3) and EL layer (4, 5, 6), however, Yasunori does not disclose the insulating layer is a patterned layer.

Miyake discloses an EL element (figure 3) having an EL part including a first electrode (3), an EL layer (6), and a second electrode (4), wherein a patterned insulating layer (5) is formed between the first electrode and the EL layer (paragraph 33), for the purpose of enhancing contrast.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have an EL part including a first electrode, an EL layer, and a second electrode, wherein a patterned insulating layer is formed between the first electrode and the EL layer as disclosed by Miyake in the element disclosed by Yasunori, for the purpose of enhancing contrast.

Regarding claim 4, Yasunori discloses the first film substrate is transparent (paragraph 34).

Regarding claim 6, Yasunori discloses an EL element (figures 1 and 2) comprising: a first film substrate (1), an EL part (2), and a sealant layer (9, 13), the EL part comprising a first electrode (3), an EL layer (4, 5, 6), and a second electrode (3), and being provided on a part (1a) of a surface of the first film substrate; the sealant layer (9) being provided to cover the EL part and to cover an EL part-free part (1 except 1a) of the surface of the first film substrate in such a manner that the sealant layer covering the EL part is contiguous with the sealant layer covering the EL part-free part of the surface of the first film substrate (figures 1 and 2), a second film substrate (104) being provided on the sealant layer (13).

Yasunori further discloses having an insulating layer (8) which is between the first electrode (3) and EL layer (4, 5, 6), however, Yasunori does not disclose the insulating layer is a patterned layer.

Miyake discloses an EL element (figure 3) having an EL part including a first electrode (3), an EL layer (6), and a second electrode (4), wherein a patterned insulating layer (5) is formed between the first electrode and the EL layer (paragraph 33), for the purpose of enhancing contrast.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have an EL part including a first electrode, an EL layer, and a second electrode, wherein a patterned insulating layer is formed between the first electrode and the EL layer as disclosed by Miyake in the element disclosed by Yasunori, for the purpose of enhancing contrast.

Regarding claim 9, Yasunori discloses the first film substrate is transparent (paragraph 34).

Regarding claim 11, Yasunori discloses the whole EL element is transparent (paragraphs 30-37).

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasunori in view of Miyake, in further view of Vong (US 2004/0021415).

Regarding claim 3, Yasunori in view of Miyake discloses all the claimed limitation except for the thickness of the first film substrate being 50-300 microns and the thickness of the whole EL element being 100-700 microns.

Vong discloses an EL element (figure 1) having the thickness of the first film substrate (12) being 25-1000 microns (paragraph 28), and the thickness of the whole EL element being 100-700 microns (paragraphs 17-22), for the purpose of effectively emit light and keep the thickness of the device thin.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the thickness of the first film substrate being 25-1000 microns, and the thickness of the whole EL element being 100-700 microns as disclosed by Vong in the element disclosed by Yasunori in view of Miyake, for the purpose of effectively emit light and keep the thickness of the device thin.

Regarding claim 8, Yasunori in view of Miyake discloses all the claimed limitation except for the thickness of the first film substrate being 50-300 microns and the thickness of the whole EL element being 100-700 microns.

Vong discloses an EL element (figure 1) having the thickness of the first film substrate (12) being 25-1000 microns (paragraph 28), and the thickness of the whole EL element being 100-700 microns (paragraphs 17-22), for the purpose of effectively emit light and keep the thickness of the device thin.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the thickness of the first film substrate being 25-1000 microns, and the thickness of the whole EL element being 100-700 microns as disclosed by Vong in the element disclosed by Yasunori in view of Miyake, for the purpose of effectively emit light and keep the thickness of the device thin.

Claims 12-15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasunori in view of Miyake, in further view of Bellmann (US 2003/0124265).

Regarding claim 12, Yasunori discloses an EL element (figures 1 and 2) comprising: a first film substrate (1), an EL part (2), and a sealant layer (9), the EL part comprising a first electrode (3), an EL layer (4, 5, 6), and a second electrode (3), and being provided on a part (1a) of a surface of the first film substrate; the sealant layer (9) being provided to cover the EL part and to cover an EL part-free part (1 except 1a) of the surface of the first film substrate in such a manner that the sealant layer covering the EL part is contiguous with the sealant layer covering the EL part-free part of the surface of the first film substrate (figures 1 and 2), the EL element being located on such a side that upon energization of any one of the first film substrate side and the sealant layer side, fluorescent emission is viewable (paragraph 34), a light transparent layer (8) being formed on the fluorescent emission viewable side (bottom).

Yasunori further discloses having an insulating layer (8) which is between the first electrode (3) and EL layer (4, 5, 6), however, Yasunori does not disclose



the insulating layer is a patterned layer. Yasunori also does not disclose the light transparent layer is pattern layer.

Miyake discloses an EL element (figure 3) having an EL part including a first electrode (3), an EL layer (6), and a second electrode (4), wherein a patterned insulating layer (5) is formed between the first electrode and the EL layer (paragraph 33), for the purpose of enhancing contrast.

Bellmann discloses an EL element having a light transparent pattern layer (paragraph 87), for the purpose of enhancing contrast.

The examiner notes that the claim limitation of the EL element being located on such a side that upon energization of any one of the first film substrate side and the sealant layer side, fluorescent emission is viewable is drawn to a functional claim limitation which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a functional limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject functional claim limitation is not afforded patentable weight (MPEP 2114).

It would have been obvious to one of ordinary skill in the art at the time the invention was made having an EL part including a first electrode, an EL layer, and a second electrode, wherein a patterned insulating layer is formed between the first

electrode and the EL layer as disclosed by Miyake in the element disclosed by Yasunori, and a light transparent pattern layer as disclosed by Bellmann in the element as disclosed by Yasunori, for the purpose of enhancing contrast.

Regarding claim 13, Yasunori discloses the light transparent pattern layer (8) comprises openings (between 8) using a light shielding sheet as a substrate (1).

Regarding claim 14, the examiner notes that the claim limitation of a design layer being formed by printing is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (MPEP 2113).

Regarding claim 15, Yasunori discloses a design layer (8) is formed of a transparent film substrate (insulator layer, paragraph 41) different from the film substrate (1) constituting the EL element (2).

Regarding claim 17, Yasunori discloses an EL element (figures 1 and 2) comprising: a first film substrate (1), an EL part (2), and a sealant layer (9), the EL part comprising a first electrode (3), an EL layer (4, 5, 6), and a second electrode (3), and being provided on a part (1a) of a surface of the first film substrate; the

sealant layer (9) being provided to cover the EL part and to cover an EL part-free part (1 except 1a) of the surface of the first film substrate in such a manner that the sealant layer covering the EL part is contiguous with the sealant layer covering the EL part-free part of the surface of the first film substrate (figures 1 and 2), a second film substrate (104) being provided on the sealant layer (13), the EL element being located on such a side that upon energization of any one of the first film substrate side and the sealant layer side, fluorescent emission is viewable (paragraph 34), a light transparent pattern layer (8) being formed on the fluorescent emission viewable side (bottom).

Yasunori further discloses having an insulating layer (8) which is between the first electrode (3) and EL layer (4, 5, 6), however, Yasunori does not disclose the insulating layer is a patterned layer. Yasunori also does not disclose the light transparent layer is pattern layer.

Miyake discloses an EL element (figure 3) having an EL part including a first electrode (3), an EL layer (6), and a second electrode (4), wherein a patterned insulating layer (5) is formed between the first electrode and the EL layer (paragraph 33), for the purpose of enhancing contrast.

Bellmann discloses an EL element having a light transparent pattern layer (paragraph 87), for the purpose of enhancing contrast.

The examiner notes that the claim limitation of the EL element being located on such a side that upon energization of any one of the first film substrate side and the sealant layer side, fluorescent emission is viewable is drawn to a functional claim limitation which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a functional limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject functional claim limitation is not afforded patentable weight (MPEP 2114).

It would have been obvious to one of ordinary skill in the art at the time the invention was made having an EL part including a first electrode, an EL layer, and a second electrode, wherein a patterned insulating layer is formed between the first electrode and the EL layer as disclosed by Miyake in the element disclosed by Yasunori, and a light transparent pattern layer as disclosed by Bellmann in the element as disclosed by Yasunori, for the purpose of enhancing contrast.

Regarding claim 18, Yasunori discloses the light transparent pattern layer (8) comprises openings (between 8) using a light shielding sheet as a substrate (1).

Regarding claim 19, the examiner notes that the claim limitation of a design layer being formed by printing is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus

cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (MPEP 2113).

Regarding claim 20, Yasunori discloses a design layer (8) is formed of a transparent film substrate (insulator layer, paragraph 41) different from the film substrate (1) constituting the EL element (2).

Claims 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasunori in view of Miyake, in further view of Bellmann, in further view of Duggal (US 2003/0184219).

Regarding claim 16, Yasunori in view of Miyake, in further view of Bellmann discloses all the claim limitation except for a barrier layer having at least one of gas barrier properties and water vapor properties being provided between the first film substrate and the EL part.

Duggal discloses an OLED (figure 1) having a barrier layer (50) with a water vapor barrier property being provided between the first film substrate and the EL part (paragraph 40), for the purpose of reducing the diffusion of water vapor (paragraph 40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a barrier layer with a water vapor barrier property being provided between the first film substrate and the EL part as disclosed by Duggal in the OELD disclosed by Yasunori in view of Miyake, in further view of Bellmann, for the purpose of reducing the diffusion of water vapor.

Regarding claim 21, Yasunori in view of Miyake, in further view of Bellmann discloses all the claim limitation except for a barrier layer having at least one of gas barrier properties and water vapor properties being provided between the first film substrate and the EL part.

Duggal discloses an OELD (figure 1) having a barrier layer (50) with a water vapor barrier property being provided between the first film substrate and the EL part (paragraph 40), for the purpose of reducing the diffusion of water vapor (paragraph 40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a barrier layer with a water vapor barrier property being provided between the first film substrate and the EL part as disclosed by Duggal in the OELD disclosed by Yasunori in view of Miyake, in further view of Bellmann, for the purpose of reducing the diffusion of water vapor.

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasunori in view of Miyake, in further view of Duggal.

Regarding claim 22, Yasunori in view of Miyake discloses all the claim limitation except for a barrier layer having at least one of gas barrier properties and water vapor properties being provided between the first film substrate and the EL part.

Duggal discloses an OLED (figure 1) having a barrier layer (50) with a water vapor barrier property being provided between the first film substrate and the EL part (paragraph 40), for the purpose of reducing the diffusion of water vapor (paragraph 40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a barrier layer with a water vapor barrier property being provided between the first film substrate and the EL part as disclosed by Duggal in the OLED disclosed by Yasunori in view of Miyake, for the purpose of reducing the diffusion of water vapor.

Regarding claim 23, Yasunori in view of Miyake discloses all the claim limitation except for a barrier layer having at least one of gas barrier properties and water vapor properties being provided between the first film substrate and the EL part.

Duggal discloses an OELD (figure 1) having a barrier layer (50) with a water vapor barrier property being provided between the first film substrate and the EL part (paragraph 40), for the purpose of reducing the diffusion of water vapor (paragraph 40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a barrier layer with a water vapor barrier property being provided between the first film substrate and the EL part as disclosed by Duggal in the OELD disclosed by Yasunori in view of Miyake, for the purpose of reducing the diffusion of water vapor.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened



statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BUMSUK WON whose telephone number is (571)272-2713. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minh Toan Ton can be reached on 571-272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 2889

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